



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,992	06/25/2001	Kazutoshi Higuchi	500.36977CX1	2939
20457	7590	11/03/2003	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP			GARY, ERIKA A	
1300 NORTH SEVENTEENTH STREET			ART UNIT	PAPER NUMBER
SUITE 1800			2681	
ARLINGTON, VA 22209-9889				

DATE MAILED: 11/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/886,992	HIGUCHI, KAZUTOSHI
Examiner	Art Unit	
Erika A. Gary	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 07 November 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 7 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. 09/261,179.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) Interview Summary (PTO-413) Paper No(s). _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on page 1, it should be noted that this is a continuation of application Serial No. 09/261,179, filed March 3, 1999, which is now US Patent No. 6,438,358.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's submission of prior art, Nakayama et al., US Patent Number 6,175,746 (hereinafter Nakayama) in view of applicant's submission of prior art, Portin, US Patent Number 5,794,159 (hereinafter Portin).

Regarding claim 7, Nakayama discloses a multi-band radio terminal apparatus comprising: a transmitter/receiver for processing radio communication signals of a plurality of communication frequency bands, said radio communication signals being used to communicate with a base station; a first frequency converter for frequency-converting the frequency bands of said radio communication signals between the communication frequency bands and an intermediate frequency band; a second

frequency converter for converting said radio communication signals between base-band signals and an intermediate frequency signal; and a base-band signal processing circuit for handling a conversion between said base-band signals and audio signals, wherein said second frequency converter includes a second local oscillator for producing a second local oscillator signal, wherein said first frequency converter includes: one reception-sided mixer for converting a reception signal within the communication frequency band into another reception signal within the intermediate frequency band, one transmission-sided mixer for converting a transmission signal within the intermediate frequency band into another transmission signal within the communication frequency band, a first local oscillator for commonly supplying a first local oscillator signal to both said reception-sided mixer and said transmission-sided mixer, and a mixer for using said second local oscillator signal so as to convert a transmission base-band signal into a transmission intermediate frequency signal [fig. 1: col. 1: lines 30-48; col. 3: lines 12-13, 29].

What Nakayama does not specifically disclose is wherein the second local oscillator includes a plurality of oscillators and a switch. However, Portin teaches this limitation.

Portin discloses a multi-band radio terminal comprising a plurality of oscillators having a different oscillating frequency from each other, and a switch for selectively supplying the oscillator outputs of said plurality of oscillators to said mixer, wherein said switch selects a frequency out of said different frequencies in response to the frequency

band of the radio signal used in the communication between the base station and the multi-band radio terminal apparatus [fig. 3: ref. 38; col. 2: lines 11-24].

Nakayama and Portin are combinable because they are from the same field of endeavor, that is, multi-band radio terminals. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Nakayama to include Portin. The motivation for this combination would have been to provide a means to selectively switch the oscillator outputs and provide different frequencies based on the frequency bands in which the terminal is operating.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 7 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim1 of U.S. Patent No. 6,438,358. Although the conflicting claims are not identical, they are not patentably distinct from each other because new claim 7 discloses substantially the same multi-band radio

terminal disclosed in patented claim 1. The main distinction is that new claim 7 does not disclose the details of the first local oscillator and instead discloses details of the second local oscillator. However, it is well known in the art to provide a switch and plural local oscillators or a frequency doubling or dividing circuit for doubling or dividing the oscillator frequency and selectively supplying the frequency through use of a switch.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Brown et al., US Patent Number 6,256,511, disclose a dual-mode radio architecture.

Higuchi, US Patent Number 6,587,673, disclose a multi-band radio terminal apparatus.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika A. Gary whose telephone number is 703-308-0123. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh N. Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/886,992
Art Unit: 2681

Page 6

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

EAG
October 30, 2003


ERIKA GARY
PATENT EXAMINER